Western Power Trading Forum Informal Comments on the April 9, 2015 Workshop and the *Joint Reliability Plan Track Two Unified Long Term Reliability Planning Assessment Tool Concept Paper*
Joint Reliability Plan Rulemaking – R.14-02-001
April 23, 2015

The Western Power Trading Forum[1] offers herein its comments on the April 9, 2015, workshop in this Joint Reliability Plan ("JRP") proceeding R.14-02-001 as well as the associated Concept Paper issued by staff.[2] The Concept Paper outlines a proposal for developing a unified long term reliability planning assessment tool as proposed under track two of the JRP proceeding. Staff proposes to establish a mechanism for creating an electricity needs and supply database looking forward annually for ten years in the future. This mechanism would, among other things, analyze the likelihood of annual generator retirements during that timeframe.

Staff's announced goal is to create a modeling framework to analyze the financial stability of generators within the fleet in order to forecast generator retirements for each of the next ten years. They seek to provide information to regulators as well as to the market generally to increase the likelihood that valuable resources will continue to contribute to grid reliability. The Concept Paper further states that the "ultimate goal of the modeling approach proposed here is to develop a factor test to establish whether a forecast retirement is inefficient."[3]

The Concept Paper methodology would entail the collection of resource-level data on forward contracting, using this information to examine the economic viability of uncontracted resources. If the analysis concludes that individual uncontracted resources are not economically viable, they resources would potentially be deemed at risk of retirement. However, WPTF believes (1) there is insufficient clarity as to precisely how this information would be utilized; and (2) too many contemplated retirements could be considered "efficient" despite the fact they involve resources necessary to meet reliability requirements.

---

[1] WPTF is a California non-profit, mutual benefit corporation. It is a broadly based membership organization dedicated to enhancing competition in Western electric markets in order to reduce the cost of electricity to consumers throughout the region while maintaining the current high level of system reliability. WPTF actions are focused on supporting development of competitive electricity markets throughout the region and developing uniform operating rules to facilitate transactions among market participants.

[2] Joint Reliability Plan Track Two Unified Long Term Reliability Planning Assessment Tool Concept Paper, March 25, 2015 ("Concept Paper").

[3] Concept Paper, at p. 2.

As a general comment, it is difficult to opine on the value of the proposed assessments when it is unclear precisely to what use the information obtained will be put to use. For example, since the Concept Proposal does not propose to identify specific units at risk it is unclear why the information gathering process will "increase the likelihood that valuable resources will continue to contribute to grid reliability."[4]

Nevertheless, WPTF believes that is it worthwhile to attempt to develop a framework for evaluating the availability of generation resources to reliably meet load looking forward from one to ten years. It is certainly important to examine the adequacy of available capacity in order to ascertain whether reliability needs will be met. While it is a given that units without contracts are highly likely to be deemed uneconomic, such an analysis does not go far enough. Perhaps more critical to such an analysis, however, is whether adequate capacity is actually under contract in order to meet projected reliability needs. An analysis of whether sufficient units are under contract would be a valuable addition to the planned study.

A further concern about the Concept Paper proposal is that its analytic framework does not seem to be sufficiently robust to identify whether potential retirements of uncontracted resources would be classified either as efficient or inefficient. The Concept Paper suggests the development of criteria that could attempt to determine whether a resource provides reliability benefits either due to its location or its possession of flexible operating characteristics. However, the development of such criteria may not always identify resources that are necessary for system reliability. A better approach would be to adopt the use of SERVM, especially since this is what Staff proposes to use for the analysis of the economics of contracted resources. Another alternative would be to use another analytical tool such as the production cost simulations utilized by CAISO in the LTPP proceeding as it may provide a more robust analytical framework to decide whether potential retirements are efficient or inefficient.

1. General Comments

WPTF offers the following responses to the questions raised in the Concept Paper:

a. **Overall Framework: Does the proposed two-part approach sufficiently address issues raised in the JRP scoping memo and, in general, will it provide for an improved reliability planning framework? Will the proposed modeling approach give parties a better understanding of the potential for inefficient resource retirements within the next ten years?**

WPTF agrees that identification and dissemination of forward contracting data will be useful as a means to identify the supply and demand of existing resources on a multi-year forward basis. However, this analysis must also include a realistic assessment of the amount of capacity that is actually required. As noted above, there should be an intermediate-term reliability analysis that uses SERVM or production cost simulations such as those developed by CAISO for the LTPP proceeding.

[4] Id, at p. 3.

While the economic viability of non-contracted resources is important, the optimal assessment that needs to be made will in fact be the identification of contracted resources in the context of future needs. In other words, the Commission must identify the gap between projected need and is the amount of resources under contract. At the workshop, the CAISO proposed running SERVM with only contracted resources. This approach should be useful as it is likely to identify the amount of uncontracted resources required to achieve and/or maintain reliability. At the same time, if the goal is to identify which resources are economically viable, it would be advisable to assume that all resources will continue in operation rather than only contracted resources since past history demonstrates that resources can remain economically viable by means of short-term market transactions or longer term agreements entered into prior to the year being simulated.

2. Needs and Supply Database Questions

a. General Database Questions

i. Timing: When should Staff release the annual update of the forward needs and supply database?

WPTF recommends that the forward needs and supply database should be released prior to the time that load-serving entities ("LSE") generally engage in RA contracting and intermediate-term procurement. LSEs customarily engage in RA procurement for the following delivery year subsequent to the annual RA decision that normally occurs in June of each year. Therefore, if contract data was collected after LSEs complete their annual year-ahead RA showings in late October, the analytical results could be made public the following first quarter of the year. Such a release should occur in advance of LSEs' annual RA contracting as well as any intermediate RFOs that may be scheduled.

ii. Confidentiality: Which information in the proposed database should be made public and which should remain confidential? How should the CPUC report / aggregate information for local area resource contracting that accounts for confidentiality?

Commercially sensitive information must be protected by Staff. Data aggregation will be a fundamental issue that much be considered. As a general principle, Staff should not release pricing information that is any less aggregated than the information that is already published in the Commission's annual RA report. Preferably, there should be at least three non-affiliated suppliers in a location before data is released. The identity of specific resources should be kept confidential (unless already publicly available through such sources as utility advice letters). Finally, commercial information and other market sensitive information, such as use limits associated with a unit, should be kept confidential.

b. Load Forecast Database

i. Disaggregation: Obtaining future needs based on CEC IEPR forecast is complicated by the need to disaggregate CEC and CAISO forecasts to reflect CPUC jurisdictional LSEs. If the CEC IEPR forecast is used to assess future needs, how should this disaggregation be performed?

WPTF has no opinion with regard to how to incorporate the IEPR forecasts into the needs and supply database. The methodology suggested in the answer to question 1 above should include the loads and resources of non-jurisdictional LSEs. A reliability analysis using SERVM or a

similar tool should consider all loads and resources. Consequently, disaggregation of load forecasts may not be necessary for such modeling.

c. Available Supply Database

i. LTPP Deficit: The difference between LTPP authorizations and CPUC-approved additions reflects an expected future deficit in the available supply database. How can this deficit be incorporated into the available supply database in a manner that is consistent with LTPP procurement targets, while not biasing what resources could fill the deficit? With what spatial / temporal granularity?

WPTF recommends that the database should focus on actual CPUC-authorized procurement as opposed to LTPP approvals. The former represents actual contracting while the latter is more speculative and is dependent upon how the utility actually conducts its RFO and what approvals are sought in the resulting application. Commission authorizations frequently include ranges of procurement and recently include variable allocations as to preferred resources as well. By premising the database on actual approved authorizations there will be greater certainty and less need for constant revisions to reflect the differences between actual CPUC procurement authorizations and the LTPP approvals that led to the latter procurement. One exception to this recommendation would be when procurement has been authorized in the LTPP but the utility has not yet completed its RFO or its contracts are awaiting approval. In such a case, use of the LTPP approvals would be acceptable, with the database to be updated with actual authorized procurement data on its next iteration.

ii. **Data availability**: **In addition to information captured within the LTPP process, is any formal data request needed to more accurately capture from CPUC jurisdictional LSEs information related to available supply or retirements occurring by year within the next ten years?**

WPTF believes that the existing LTPP process most likely obtains information sufficient for successful completion of the supply database for IOUs, making it unnecessary to consider any additional form of data requests. For non-utility LSEs, a data request sent by mid-October with responses due by November 15 would seem appropriate. It would be efficient if after the initial data request, all future submissions by non-utility LSEs would only be required to include information concerning new contracts or substantive changes to existing contracts. Importantly, WPTF believes that all LSE contract data should be deemed confidential pursuant to existing Commission rules, although the release of aggregated data would be acceptable, as was done for the Track One Staff Report.[5] Finally, WPTF concurs with Staff's recommendation not to request market price data from LSEs.

d. Contracted Resources Database

i. Template: Does the template developed by Staff (sent as a separate attachment) sufficiently capture LSE contracting data for the purposes of this analysis? Is any data missing, or could any data be collected more efficiently?

[5] *Joint Reliability Plan Track One Staff Report,* Meredith Youngheim, Energy Division, R.14-02-001, October 2, 2014, Figure 3, p. 20.

At least with respect to non-utility LSEs, WPTF believes that the template may request information unavailable to them, such as that requested in columns F through M. It would seem prudent for Staff to review the template with an eye towards making sure its proposed template is not too "utility-centric" and does not focus solely on information that would be available to IOUs but not to non-utility LSEs.

ii. Timing: When is the ideal time each year to have CPUC staff collect the contracting data from CPUC-LSEs? Should this request and reporting occur annually? For the purpose of the upcoming study, is it acceptable to parties to include an additional off-schedule data request?

As noted above, a large amount of RA contracting occurs after the issuance of the annual RA decision in June and the year-ahead showings that are filed at the end of October. Therefore, data collection should be synchronized with this annual schedule. By collecting the required data in November to December time frame and releasing the data in the following quarter, subsequent procurement will be informed by the data on a timely basis.

3. Economic Risk of Retirement Modeling Questions

a. Stochastic Inputs: Are the stochastic inputs sufficient to capture expected uncertainties and variability?

The Staff proposal would utilize load shape, load level and renewable generation profiles as the primary stochastic inputs. The Commission should also include variations in gas prices and hydro production conditions.

b. Fixed O&M Costs: What should be the basis for calculating fixed O&M costs?

The workshop discussion indicated that Staff plans to compare the energy and ancillary services gross margins for a resource to its going-forward fixed costs. WPTF understands that such costs would include O&M, property/ad valorem taxes, insurance, and perhaps corporate taxes as well. The Commission may want to consider use of the CEC's estimates of going-forward fixed costs for generic combined cycles and combustion turbines as these may serve as suitable proxies. While WPTF understands the analytic basis for focusing on whether a resource can recover its going-forward fixed costs in order to determine whether the resource is at risk of retirement, WPTF believes that appropriately structured markets should allow resources to recover capital costs in addition to going-forward costs. Consequently, WPTF recommends that Staff also consider the extent to which resources, including contracted resources, are able to recover capital costs.

Furthermore, resources at risk of retirement have salvage value that should be recognized in any analysis. Owners may decide to retire resources in internal analyses indicate that both the operation costs and a desired rate of return cannot be achieved. In this case, major equipment items at a modern combined cycle or combustion turbine have value and frequently can be re-deployed. The value of the equipment that can be re-deployed when compared to what could be earned from energy and ancillary services markets could be significant. Salvage value could be determined by application of a multiplier to estimates of going forward fixed costs. This approach has been used, in fact, in the derivation of the proposed CPM soft offer price cap. A salvage value annual "cost" could also be derived by applying an estimated rate of return to an estimated value of the salvageable equipment.

c. Local Capacity Technical Studies: CAISO Local Capacity Technical Studies examine the importance of generators for local reliability. How can results of the CAISO Local Capacity Technical studies be used to understand inefficient retirements?

Local Capacity Technical Studies are of great importance with regard to the identification of local capacity needs and requirements in specific Local Capacity Areas and sub-areas. In this regard, the Studies provide very valuable information akin to the value provided by the CAISO's flexible requirement analyses. The Studies also can identify the way that specific resources are valuable for resolving particular contingencies that define local or sub-area requirements. However, WPTF is less certain as to how the Studies can be used to understand inefficient retirements. At best, the Studies might be able to predict which resources are useful for maintaining local reliability despite the lack of a clearly demonstrated need.

d. Inefficient Retirements: "Whether a resource is determined to be at risk of inefficiently retiring is dependent upon a factor test, which encompasses both the valuable attributes of the resource and its financial situation." How can a factor test be developed to inform determination of inefficient retirement? What additional factors should be considered?

Predictions of retirement of individual assets are dependent on a broad variety of factors, not all of which will be evident to parties undertaking the data collection and its evaluation. Projections may vary significantly between owners and outside evaluators the simple reason that the outside evaluator is not privy to all of the owner's information and financial plans. Therefore, a model that produces accurate and fully believable risk-of-retirement results may be quite difficult to achieve. Furthermore, even factors known to the evaluators are in constant flux. For example RA counting rules can change and flexibility requirements can change. Therefore, the identification of resources that are needed for system reliability will be an ever-changing palette. As noted above, the use of a reliability model such as SERVM to model system-level capacity requirements as well as resource-specific economics might provide greater insight into which resources are at risk of inefficient retirement.

e. Sensitivity Studies and Benchmarking: What sensitivity and benchmarking studies, in addition to what are described in this paper, should be performed?

As a general principle, WPTF recommends that the out-year results should be benchmarked against the results of the latest LTPP studies. Even though the LTPP studies do not specify economic viability, it would be valuable to compare their conclusions with the model's operational results. On a more granular level, the uncertainty surrounding Diablo Canyon's continued operation would suggest that it may be useful to perform the analyses described in the Concept Paper on both a with and without Diablo Canyon basis.

Finally, another potentially useful benchmarking tool would be to compare Staff's estimates of energy and ancillary services gross margins for a combined cycle and a combustion turbine to the CAISO estimates included in its annual Market Issues and Performance report. While the CAISO's estimates are retrospective and based on deterministic analysis rather than prospective and based on a stochastic analysis, the comparison may achieve similar results, which could serve as an additional validation.